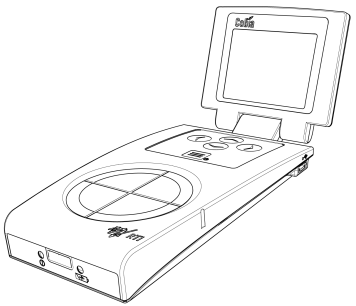
User Manual

Cobia Smart R/F & Cobia Dental Intraoral

English - v2013.7B



RTI

NOTICE

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You can download user manuals here: www.rti.se/downloads/manuals

Contents

1. Product Overview 3

1.1 User Interface 4

1.1.1 Screen Description 4

1.1.2 Keyboard Operation 6

2. Getting Started 7

2.1 Starting the Cobia for the First Time 7

2.2 Charging the Battery 7

3. How to Measure 8

3.1 Make a Measurement 8

4. Maintenance 9

4.1 Scheduled Calibration 9

4.2 Update the Firmware 9

4.3 Change the Battery 9

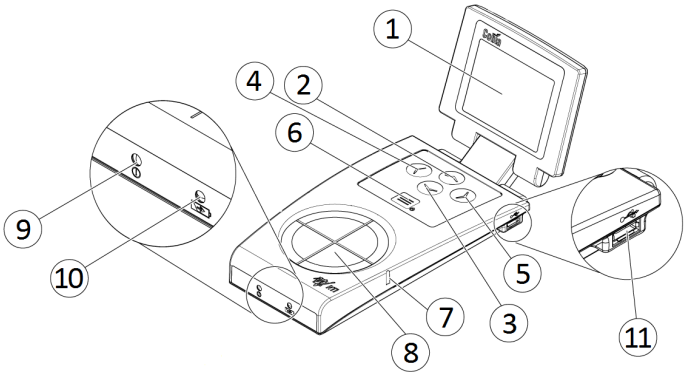
5. Technical Data 9

5.1 Battery Charging Time 9

6. Troubleshooting 9

7. Standards and Compliances 10

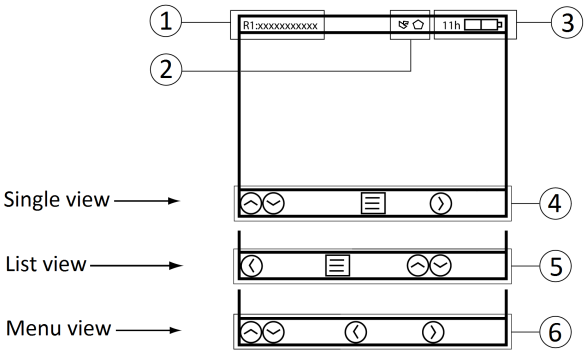
1 Product Overview



#	Name	Description
1	Display	Cobia display. See section Screen Description
2	Up button	Move marker up in the list of screen items (change active unit)
3	Down button	Move marker down in the list of screen items (change active unit)
4	Left button	In the List view, go back to Single view
5	Right button	Display the List view
6	Menu button	Start the Cobia and display the menu
7	Positioning marker	Marks the depth of the radiation measurement surface
8	Measurement surface	Entrance surface for the measurement sensors. Make sure that the whole surface is irradiated
9	Status indicator	Shows the instrument's status
10	Battery charging indicator	Shows the battery charging status
11	Micro-USB connector	Used to charge the Cobia and to connect to a computer for future firmware updates
12	Reset hole	Used to reset the Cobia. Placed on the back of the instrument (not shown in figure above).

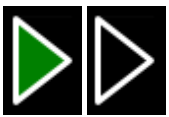
1.1 User Interface

1.1.1 Screen Description



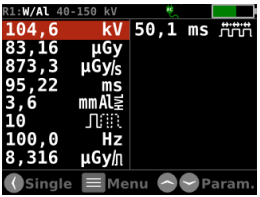
A status field is displayed at the top of the screen. The left side shows the Radiation Quality Code and a description of the active range (1).The middle displays icons for when power is supplied and warning symbols if any settings are set to non-standard values (2). The right side displays an icon for external power supply and indicator for the battery level (3).
The lower field shows what buttons you can press in the view you are in, and a text describing what the buttons do (4-6).

Single view
In single view, you see only one active parameter value and its unit. Each unit has its own color. You can press the up / down buttons to change the active parameter. To the left of the reading you will see two markers, as described below.



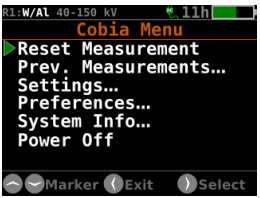
1. The play symbol (triangle) is visible during the measurement. It is filled (green) during the radiation (+ Post Delay), and will then be contoured while the Cobia accepts continued measurement (during Restart Delay).

2. Below the triangle is the pulse indicator. This will only turn on when pulses are found.



List view
In the List view, all the available parameters are shown. The active parameter is indicated in a color. The active parameter is the one shown in the single view.

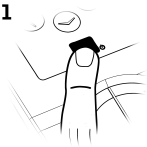
Note! The available parameters may vary depending on the model of your Cobia. The picture shows a pulsed measurement with Cobia Smart R/F kV & Dose.



Main Menu view
Displays a menu of functions. Move the marker up and down in the menu and select an item using the right arrow button.
Under *Prev. Measurements*, you will find the results of your earlier measurements.
Under *Settings* you can adjust some measurement settings and under *Preferences* you can adjust your personal preferences. Any setting change that can affect the measurement results will be shown in the status field (top of screen).
Under *System Info* you will find detailed version information about the Cobia, that may be needed during support.
Reset Measurement and *Power Off* just does what the text say.

1.1.2 Keyboard Operation

1



If Power = Off: Press once to start the Cobia.
If Power = On: Press once to display the menu. Press and hold to switch off the Cobia.
Menu: Closes the menu.

2

Single view: Changes the active parameter shown.
List view: Moves the marker up in the list of parameters on the display.
Menu: Moves the marker up in the list of menu items on the display.

3

Single view: Changes the active parameter shown.
List view: Moves the marker down in the list of parameters on the display.
Menu: Moves the marker down in the list of menu items on the display.

4

In Single view, this button switches the display to List view.
Menu: Activates the marked menu item on the display.
Setting or preferences menu: Changes the set value as displayed in yellow.

5

In List view, this button switches the display back to Single view.
In the Menu, this button switches the display back to the previous menu or screen.

2 Getting Started

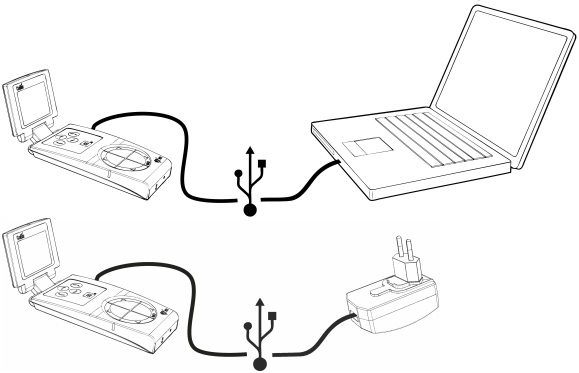
2.1 Starting the Cobia for the First Time

Before you use the Cobia for the first time, please charge the unit for 16 hours. See Charging the Battery.

2.2 Charging the Battery

You can charge the battery in two ways:

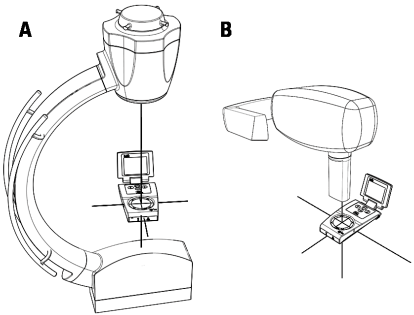
- Via the USB cable connected to a PC.
- Via the USB cable connected to an external charger.



3 How to Measure

3.1 Make a Measurement

The pictures below show different types of X-ray units and how to position the Cobia when measuring.



A = Radiography X-ray unit B = Dental X-ray unit

1. Start the X-ray unit.
2. Set up the X-ray unit to test its settings.
3. Start the Cobia.
4. Place the Cobia under the X-ray unit at a clinically relevant distance (typically 50 - 100 cm from the source).
5. Make sure that the radiation field is covering at least the entire Cobia detector surface.
6. Start an exposure.
7. When the procedure is over, the Cobia cycles through the values on its display. Press the Right button to go to the List view.
8. Compare the parameters displayed by the Cobia with the test settings for the X-ray unit.
9. Record the results.
10. To repeat, start over from Step 5.

4 Maintenance

4.1 Scheduled Calibration

RTI recommends that the Cobia is recalibrated every 24 months. Send your Cobia to your nearest RTI authorized reseller, who will send it to our service department in Mölndal, Sweden, or New Jersey, USA. See the back of this manual for contact details.

4.2 Update the Firmware

Updates are performed by the user. You update the firmware or software by downloading the latest versions from www.rti.se/downloads/software/. Instructions are included in the download or can be found in the reference manual.

4.3 Change the Battery

The battery is a special rechargeable RTI battery. The battery can only be changed by RTI authorized service centers.

5 Technical Data

5.1 Battery Charging Time

Capacity	Using power supply	USB, Cobia ON	USB, Cobia OFF
100%	5 h	8.5 h	32 h
90%	3.5 h	7 h	30 h
80%	2.5 h	6 h	27 h
50%	1.5 h	3.5 h	17 h

6 Troubleshooting

If you are experiencing problems with your Cobia, before contacting your reseller or RTI Electronics, please do the following:

A. Check the RTI website for updates http://www.rti.se.

B. Go through the checklist below.

The Cobia does not start:
If the Cobia does not start try the following: Connect the charger and then try to start it. If it does start, the battery was too low to start. If this does not help, try to reset as described below.

The Cobia indicates a dose lower than anticipated:
If you get too low dose readings or too short irradiation times for short exposures: Check that you are measuring so that the radiation is perpendicular to the detector surface. Please make sure that the entire surface is evenly irradiated.

My Cobia gives strange kV values:
The Cobia detector surface needs to be properly irradiated. Please make sure that the entire surface is evenly irradiated.

How do I reset the Cobia?
There is a small reset hole on the back of the Cobia, marked RST. Insert the end of a paper clip or similar to reset.

7 Standards and Compliances

For standards and compliances, see the Reference Manual.

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